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National Cooperative Dairy Herd Improvement Program



A plan for every size herd

STANDARD DHIA

OWNER SAMPLER

WEIGH-A-DAY-A-MONTH

AGRICULTURAL RESEARCH SERVICE, U. S. DEPARTMENT OF AGRICULTURE

ARS-44-177
(Vol. 42, No. 3)

Dairy-Herd-Improvement Letter

April 1966

ARTIFICIAL INSEMINATION (AI) PARTICIPATION REPORT FOR THE UNITED STATES-1965

An estimated total of 7,879,982 cows were bred artificially in the United States in 1965. Dairy to dairy and beef to beef inseminations were 6,301,178 and 615,147 cows, respectively. Of the 7,264,835 dairy cow total, 13.3 percent, or 963,657, were inseminated by beef bulls.

Because of incomplete reporting the tabular data shown in this report are partly estimations based on averages from complete reports. Included are data on four strictly beef operations and a report of services performed for individual ranchers who have their own beef bulls.

Table 1 shows that 43.7 percent of the nation's cows and heifers bred for dairy purposes were artificially inseminated. An estimated one-tenth of the animals so bred were registered. The top 10 States in number and percentage of dairy cows bred artificially by dairy and beef bulls are listed as follows:

<u>Rank</u>	<u>State</u>	<u>Number of dairy cows bred artificially</u>	<u>State</u>	<u>Percent of dairy cows bred artificially</u>
1	Wis.	1,351,829	Alaska	82.6
2	N. Y.	716,707	Pa.	66.0
3	Minn.	641,692	Conn.	62.6
4	Pa.	570,930	N. Mex.	62.3
5	Calif.	382,603	N. H.	61.4

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CURRENT SERIAL RECORDS

<u>Rank</u>	<u>State</u>	<u>Number of dairy cows bred artificially</u>	<u>State</u>	<u>Percent of dairy cows bred artificially</u>
6	Mich.	339,439	Fla.	59.9
7	Ohio	319,896	Wis.	59.2
8	Iowa	282,823	Wash.	58.4
9	Ill.	221,790	Mass.	57.6
10	Wash.	141,243	R. I.	57.6

Table 2 summarizes the AI program since 1939.

Table 3 shows that an estimated 591,859 herds received AI service in 1965. A total of 1,949 dairy and 439 beef bulls were reported in service during 1965. Also reported were inseminations to 3,569 swine and 587 goats.

The accompanying map illustrates the AI density in the United States in 1965.

TABLE 1.--Status of artificial breeding in the United States, January 1, 1966

State and other sources	Cows bred to dairy sires in 1965		Cows bred to beef sires in 1965		All U.S. milk cows 3/	Dairy cows bred as a percentage of all milk cows 4/
	Studs 1/	Regd. dairy 2/	Total dairy	Dairy cows		
	Number	Number	Number	Number	Thousands	Percent
Alabama-----	0	4,039	40,846	5,324	2,188	207
Alaska-----	1	161	1,943	40	73	2.4
Arizona-----	0	1,237	13,734	2,120	1,807	56
Arkansas-----	0	2,500	21,549	4,201	3,549	173
California-----	4	26,589	337,240	45,363	19,044	850
Colorado-----	1	5,052	40,888	3,498	6,072	112
Connecticut-----	1	6,486	42,833	6,596	1,267	79
Delaware-----	0	1,915	7,355	1,439	166	25
Florida-----	0	8,683	96,770	14,646	8,727	186
Georgia-----	0	7,807	54,118	8,041	4,260	185
Hawaii-----	0	1,141	9,430	780	498	18
Idaho-----	0	5,276	70,842	8,052	6,247	194
Illinois-----	3	31,525	188,958	32,832	20,760	476
Indiana-----	1	5,767	118,838	18,993	11,252	385
Iowa-----	1	16,589	239,174	43,649	23,893	760
Kansas-----	1	10,296	75,592	9,266	23,848	280
Kentucky-----	1	14,832	101,184	13,056	19,296	471
Louisiana-----	1	8,211	55,029	10,733	6,107	230
Maine-----	1	4,590	44,590	5,559	510	88
Maryland-----	1	9,679	76,013	9,820	3,085	217
Massachusetts-----	0	4,923	41,124	6,663	1,669	83
Michigan-----	1	34,437	297,766	41,673	5,409	626
Minnesota-----	2	35,819	564,057	77,635	10,094	1,309
Mississippi-----	1	6,647	53,918	7,217	2,835	288
Missouri-----	0	14,103	110,383	29,535	22,063	565
Montana-----	0	873	8,653	5,528	24,687	67
Nebraska-----	0	5,724	49,734	9,210	19,337	286
Nevada-----	0	243	3,301	520	871	16
New Hampshire-----	1	4,570	26,551	2,931	1,171	48
New Jersey-----	0	7,097	50,074	8,560	325	112
New Mexico-----	0	2,914	24,378	2,392	1,609	43
New York-----	1	114,816	629,100	87,607	4,186	1,272
North Carolina-----	1	11,981	79,384	11,599	5,147	253
North Dakota-----	0	1,228	24,211	4,878	8,033	231
Ohio-----	2	50,607	269,416	50,480	20,426	591
Oklahoma-----	5/1	3,036	26,003	2,593	9,738	199
Oregon-----	0	4,513	59,467	12,608	9,515	140
Pennsylvania-----	3	109,035	489,635	81,295	9,701	865
Puerto Rico-----	1	5,968	52,540	--	--	--
Rhode Island-----	0	744	5,480	858	148	11
South Carolina-----	0	3,916	26,684	2,794	1,741	92
South Dakota-----	0	2,879	32,402	5,177	6,393	236
Tennessee-----	3	10,319	89,431	10,487	13,158	475
Texas-----	0	10,071	85,082	4,669	22,526	486
Utah-----	1	3,050	47,358	3,446	3,498	94
Vermont-----	0	14,672	106,495	15,810	4,632	253
Virginia-----	1	17,254	101,023	13,851	5,769	314
Washington-----	2	8,198	116,299	24,944	16,787	242
West Virginia-----	0	2,535	19,663	4,368	1,414	106
Wisconsin-----	6	90,892	1,162,551	189,278	21,406	2,283
Wyoming-----	0	412	5,889	1,043	7,332	27
AI activity reported by studs, but State unknown 6/-----	-	744	6,200	--	477	--
Armour and Co. 7/- Internat'l Beef Breeders 7/-----	-	--	--	--	95,000	--
Wye Plantation 7/-----	-	--	--	--	42,500	--
48,901	--	--	--	--	--	--
United States-----	44	756,595	6,301,178	963,657	615,147	16,607
43.7						

1/ States without studs purchase semen from studs in other States. See table 3 for location of studs.

2/ Data for registered cows may be all or partially estimated when incomplete report was given.

3/ Preliminary figures for number of cows and heifers 2 years old and over kept for milk; estimated by the Statistical Reporting Service.

4/ Percentage of all dairy cows bred included in the artificial insemination program.

5/ One all-beef stud in Oklahoma serviced 2,251 beef cows. See table 3 for name and location of stud.

6/ AI breeding activity reported from: Zimmerman Dairy Farm, 6,200 cows; Codding Cattle Research, 477 cows. Total: 6,677 cows.

7/ Information obtained from National Association of Animal Breeders, P.O. Box 328, Columbia, Mo. 65202.

TABLE 2.--Status of artificial-breeding program in the United States (1939-1966, inclusive)

Year	Sires in service					Number	Number	Dairy cows bred to			Number	Number	Total cattle bred		Cows bred per sire	
	Studs	Dairy	Beef	Total	Average per stud			Herds 1/		Dairy bulls						
								Number	Number	Number	Number					
1939	7	--	--	33	4.7	646	--	--	--	--	--	7,359	228			
1940	25	--	--	138	5.5	2,971	--	--	--	--	--	33,977	246			
1941	35	--	--	237	6.8	5,997	--	--	--	--	--	70,751	299			
1942	46	--	--	412	9.0	12,118	--	--	--	--	--	112,788	274			
1943	59	--	--	574	9.7	23,448	--	--	--	--	--	182,524	318			
1944	56	--	--	657	11.7	28,627	--	--	--	--	--	218,070	332			
1945	67	--	--	729	10.9	43,998	--	--	--	--	--	360,732	495			
1946	78	--	--	900	11.5	73,293	--	--	--	--	--	537,376	597			
1947	84	--	--	1,453	17.3	140,571	--	--	--	--	--	1,184,168	815			
1948	91	--	--	1,745	19.2	224,493	--	--	--	--	--	1,713,581	982			
1949	90	--	--	1,940	21.6	316,177	--	--	--	--	--	2,091,175	1,078			
1950	97	--	--	2,104	21.7	409,300	--	--	--	--	--	2,619,555	1,245			
1951	94	--	--	2,187	23.3	548,300	--	--	--	--	--	3,509,573	1,605			
1952	94	--	--	2,324	24.7	671,100	--	--	--	--	--	4,295,243	1,848			
1953	96	--	--	2,598	27.1	755,000	--	--	--	--	--	4,845,222	1,865			
1954	93	--	--	2,661	28.6	805,000	--	--	--	--	--	5,155,240	1,937			
1955	79	--	--	2,450	31.0	845,900	--	--	--	--	--	5,413,874	2,210			
1956	79	--	--	2,553	32.3	900,400	--	--	--	--	--	5,762,656	2,257			
1957	75	--	--	2,651	35.3	946,000	--	--	--	--	--	6,055,982	2,284			
1958	71	--	--	2,676	37.7	975,372	--	--	--	--	--	6,645,568	2,483			
1959	64	--	--	2,460	38.4	930,059	--	--	--	--	--	6,932,294	2,816			
1960	62	--	--	2,544	41.0	910,000	--	--	--	--	--	7,144,679	2,808			
1961	56	--	--	2,486	44.4	863,781	7,047,148	2/	435,592	--	--	7,482,740	3,010			
1962	56	2,036	420	2,456	43.9	862,150	6,837,681	2/	911,006	--	--	7,748,687	3,155			
1963	51	2,158	-401	2,559	50.2	621,141	6,468,545	969,748	235,289	7,673,582	2,999					
1964	50	2,140	398	2,538	50.8	654,311	6,165,599	1,117,395	464,959	7,747,953	3,053					
1965	4/46	1,867	449	2,316	50.3	591,859	6,301,178	963,657	615,147	3/7,879,982	3,402					
1966	4/44	1,949	439	2,388	54.3	--	--	--	--	--	--	--	--	--		

1/ Prior to 1963, number of herds largely reflected membership rather than those actually serviced.

2/ Probably includes some beef to beef inseminations.

3/ Not shown are inseminations to 3,569 swine and 587 goats.

4/ Includes one all-beef stud.

TABLE 3.--Artificial-breeding organization bull studs, January 1, 1966

State, name, and location of studs	Herds serviced	Cows bred in 1965			Number and breed of bulls used					Insemina- tions of--					
		Dairy total	Dairy to beef	Beef	Total	Ayr- shire	Brown Swiss	Guern- sey	Hol- stein	Jer- sey	Dane	Short- horn	Beef	Total	Swine Goats
ALASKA Matanuska Valley Breeders Assn., Palmer 99645-----	60	971	40	10	1,021	--	--	--	3	--	--	--	3	--	--
CALIFORNIA Adohr Farms Inseminating Service, Rt. 1, P.O. Box 18, Camarillo 93010-----	35	9,119	--	--	9,119	--	--	14	14	--	--	--	28	--	--
Excelsior Breeding Service, 7401 Adams, Rt. 1, Box 128, Corona 91720-----	114	25,210	--	250	25,460	--	1	--	19	--	--	--	20	--	--
Jessup Breeders, 5471 San Fernando Rd., W., Glendale 91203-----	1,665	81,420	16,241	2,627	100,288	--	2	4	24	3	--	--	4	37	--
Pacific Breeders Co-op., Inc., 1464 Middle Two Rock Rd., Petaluma 94952	585	30,765	1/748	1/2,262	33,775	--	2	7	6	--	--	1	16	--	--
COLORADO Colorado State Univ. ABS, 809 City Park Avenue, Fort Collins 80521-----	1/994	10,310	579	2,031	12,920	--	--	1	--	--	--	3	4	--	2
CONNECTICUT New England Selective Breeding Assn., Inc., Rt. 5, Newton Road, Woodbridge 06525-----	5,908	90,164	1/12,622	1/3,598	106,384	2	3	8	14	8	--	--	7	42	--
ILLINOIS Curtiss Breeding Service, Inc., Cary 60013-----	1/84,836	916,428	141,440	45,000	1,102,868	4	4	14	80	14	--	3	57	176	--
Northern Ill. Breeding Co-op., Rt. 1, Hampshire 60140-----	8,028	73,445	10,477	13,619	97,541	--	8	4	27	--	--	1	--	40	1,492
Southern Ill. Breeding Assn., Breezee 62230-----	9,730	40,275	10,975	9,001	60,251	--	3	3	13	2	--	12	33	--	2
INDIANA John A. Newman & Sons, Rt. 2, Box 21, Culver 46511-----	413	--	--	413	--	--	5	--	--	--	--	5	--	--	--
IOWA Carnation Farms Breeding Service, Iowa Unit, P.O. Box N, Hiawatha 52233-----	1/25,921	93,364	21,027	10,302	124,693	--	4	5	14	2	--	2	20	47	--

See footnotes at end of table.

TABLE 3.--Artificial-breeding organization bull studs, January 1, 1966 (con't.)

State, name, and location of studs	Herds serviced	Cows bred in 1965				Number and breed of bulls used						Inseminations of-- Swine Goats	
		Dairy total	Dairy to beef	Beef to beef	Total	Ayrshire	Brown Swiss	Guernsey	Holstein	Jersey	Red Dane	Short-horn	
KANSAS													
Kansas ABS Unit, Kansas State Univ., Anderson Hall, Manhattan 66504--	3,220	38,414	4,347	19,298	62,059	3	2	1	19	2	--	2	14
KENTUCKY													
Ky. Artificial Breeding Assn., 1930 Herr Lane, Rt. 6, Louisville 40222--	12,856	69,971	8,000	17,383	95,354	--	2	3	12	8	--	4	29
LOUISIANA													
La. Animal Breeders Co-op., Inc., Box B.D., LSU, Baton Rouge 70803--	5,668	53,673	10,540	5,900	70,113	--	5	10	5	--	--	11	31
MAINE													
Maine Breeding Co-op., Inc., RFD 1, Augusta 04331--	3,158	37,833	4,320	480	42,633	--	7	15	11	--	2	--	35
MARYLAND													
Maryland-West Virginia Bull Stud, Inc., P.O. Box 555, Frederick 21701	5,452	76,974	10,813	4,108	91,895	4	3	6	21	5	--	5	44
MICHIGAN													
Mich. Animal Breeders Co-op., Inc., P.O. Box 511, East Lansing 48824--	19,235	213,674	29,213	3,000	245,887	--	3	17	40	8	4	10	86
MINNESOTA													
Midwest Genes, Inc., P.O. Box 111, Anoka 55303--	1/50,515	348,452	57,847	28,711	435,010	--	8	17	71	6	--	5	37 2/144
Minn. Valley Breeders Assn., New Prague 56071--	30,937	264,676	48,309	2,542	315,527	1	4	10	55	--	--	1	27 98
MISSISSIPPI													
Miss. Animal Breeders Co-op., Box 354, State College 39762--	1/3,295	32,876	3,667	386	36,929	--	--	1	2	8	--	2	13
NEW HAMPSHIRE													
New Hampshire-Vermont Breeding Assn., P.O. Box 350, Concord 03302--	4,523	42,931	1/4,834	1/3,920	51,685	3	1	11	15	14	--	2	46
NEW YORK													
New York ABC, Inc., P.O. Box 518, Ithaca 14851--	28,437	491,620	62,812	1,943	556,375	12	12	25	124	27	--	14	214
NORTH CAROLINA													
N.C. Inst. Breeding Assn. Dept. of Animal Science, N.C. State Univ., Raleigh 27600--	19	1,425	10	200	1,635	--	--	15	--	--	--	15	--

See footnotes at end of table.

TABLE 3.—Artificial-breeding organization bull studs, January 1, 1966 (con't.).

State, name, and location of studs	Herds serviced	Cows bred in 1965			Number and breed of bulls used						Insemina- tions of-- Swine Goats					
		Dairy total	Dairy to beef	Beef to beef	Total	Ayr- shire	Brown Swiss	Guern- sey	Hol- stein	Jer- sey	Short- horn	Dane horn	Beef	Total		
OHIO																
Central Ohio Breeding Assn., 1224 Alton- Darby Rd., Columbus 43228-----	1/26,349	207,122	25,916	3,062	267,100	4	3	15	44	6	--	10	82	--	361	
NOBA, Inc., Rt. 4, P.O. Box 1015, Tiffin 44883--	15,019	184,403	30,549	11,463	226,415	--	3	11	34	16	--	1	5	70	--	18
PENNSYLVANIA																
Atlantic Breeders Co-op., Rt. 230, By-Pass, Box 254, Lancaster 17604----	18,312	198,006	35,836	3,982	237,824	2	4	14	39	6	--	--	8	73	--	44
Northeastern Breeders Assn., R.D. 2 Tunkhannock 18657-----	13,125	188,642	30,106	700	219,448	6	3	14	60	9	--	--	9	101	--	--
Zimmerman Dairy Farm, Rt. 2, Lehighton 18235--	1/615	8,000	---	---	8,000	---	---	3	--	--	--	3	--	3	--	--
PUERTO RICO																
Puerto Rico Artificial Breeding Assn., P.O. Box 958, Dorado 00646-----	943	26,541	---	---	26,541	---	3	--	8	--	--	--	11	--	--	--
TENNESSEE																
East Tenn. ABA, Rt. 10, Tipton Station Rd., Knoxville 37900-----	9,819	26,370	5,895	5,382	37,647	2	1	7	10	8	--	1	8	37	--	--
Tenn. Artificial Breeding Assn., Rt. 2, Granny White Rd., Brentwood 37027-----	5,006	30,439	1,890	2,110	34,439	---	3	3	5	5	--	--	3	19	--	--
West Tenn. ABA, Box 38, Yorkville 38389-----	943	6,719	650	3,031	10,400	---	---	6	5	5	--	--	12	23	--	--
UTAH																
Cache Valley Breeding Assn., 1950 N. Main, Logan 84321-----	8,485	70,312	4,538	19,740	94,590	---	1	2	21	1	--	1	19	45	--	--
VIRGINIA																
Va. Animal Breeders Assn., Inc., Rt. 4, P.O. Box 391, Rocky Mount 24151--	7,606	63,745	8,169	3,933	75,847	1	--	6	15	4	--	--	4	30	--	10
WASHINGTON																
All West Breeders, P.O. Box 197, Burlington 98233-----	1/13,344	142,456	31,490	19,930	193,876	1	--	23	33	23	--	2	2	84	--	11
Carnation Farms Breeding Service, Wash. Unit, Carnation 98014-----	62	2,310	500	40	2,850	---	---	4	--	--	--	1	5	--	--	--

TABLE 3.—Artificial-breeding organization bull studs, January 1, 1966 (con't.)

State, name, and location of studs	Herds serviced	Cows bred in 1965				Number and breed of bulls used				Insemina- tions of-- Swine Goats			
		Dairy total	Dairy to beef	Beef to beef	Total	Ayr- shire	Brown Guern- sey	Hol- stein	Jer- sey	Dane	Short- horn	Beef	Total
WISCONSIN													
American Breeders Service, Inc.													
De Forest 53532-----1/110,988	1,158,409	187,523	96,910	1,442,842	3	5	7	184	9	--	2	38	3/248
Associated Breeding Service, Lena 54139-----	1,194	12,511	2,942	194	15,647	--	--	4	13	--	--	4	21
Badger Breeders Co-op., Rt. 2, P.O. Box 469,													
Shawano 54166-----	20,823	347,104	49,722	3,879	400,705	--	6	11	32	2	--	5	56
Carnation Farms Breeding Service, Wits. Unit, Rt. 4, Watertown 53094-----	4,097	103,453 1/16,355	1/5,959	125,767	3	3	3	24	5	--	2	--	40
East Central Breeders Assn. Co-op., 314 Beaver Dam St. P.O. Box 191, Waupun 53963-----	4,656	74,298	14,402	400	89,100	--	5	3	26	--	--	5	39
Tri-State Breeders Co-op. Westby 54667-----	24,283	391,693	58,313	7,063	457,069	--	1	13	57	3	--	2	16
AI activity by private stud s and individuals, or studs not reported 4/	45	5,565	--	810	6,375	--	--	--	--	--	--	--	--
AI activity in custom- freezing 5/-----	914	8,677	--	26,336	35,013	--	--	--	--	--	--	--	--
ALL-BEEF STUDS OR REPORTS, OR REPORTED BY NAAB													
Armour & Co. Beef Cattle Improvement Research, Box 9222, Chicago, Ill. 60690 6/-----													
Coddling Cattle Research, Foraker, Okla. 74638-----	8	--	--	2,251	2,251	--	--	--	--	--	--	30	30
International Beef Breeders, Inc., Box 29007, Denver, Colo. 80200 6/-----													
Wye Plantation, Queenstown, Md. 21658 6/													
Additional services involving semen from ranchers' bulls 6/-----													
UNITED STATES-----	591,859	6,301,178	963,657	615,147 7,879,982	51	101	293	1,238	231	4	31	439	2,388
													3,569
													587

1/ Data may be all or partially estimated when incomplete report was given.

2/ Includes 46 bulls in a young sire progeny testing program: 4 Guernsey, 37 Holstein, 3 Jersey, 1 Brown Swiss, 1 Milking Shorthorn.

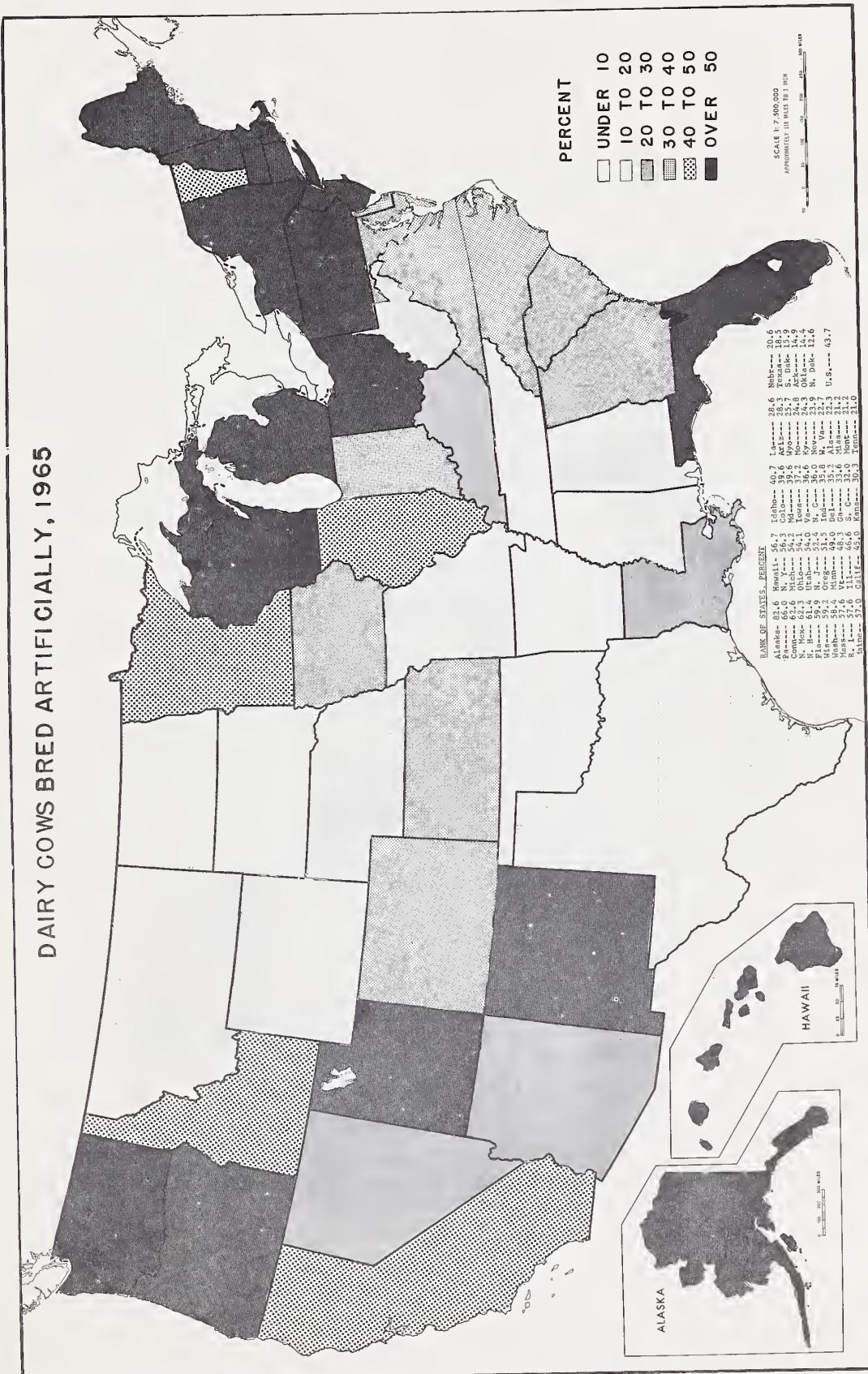
3/ Includes 121 Holstein bulls in a young sire progeny testing program.

4/ AI breeding activity reported from: Georgia, 810 cows; Hawaii, 3,385 cows; Puerto Rico, 1,700 cows; Rhode Island, 480 cows.

5/ Custom-freezing reported from: Jessup Breeders, 17,200; Colorado State University, 6,613; Midwest Genes, Inc., 11,200.

6/ Information obtained from National Association of Animal Breeders, Box 328, Columbia, Missouri 65202.

DAIRY COWS BRED ARTIFICIALLY, 1965



EXTENSION SERVICE OFFICIALS WORKING WITH DAIRY BREEDING ASSOCIATIONS IN THE STATES

Ala----- R. S. Jones, Jr., Dairy Science Dept., Auburn University, Auburn 36830.
Alaska--- W. J. Sweetman, Experiment Station Research Staff, University of Alaska, Palmer 99645.
Ariz----- W. R. Van Sant, Dept. of Dairy Science, University of Arizona, Tucson 85721.
Ark----- L. Ratcliff, Animal Industry & Veterinary Science Dept., University of Arkansas, Little Rock 72203.
Calif---- C. L. Pelissier, Extension Service, University of California, Davis 95616.
Colo---- D. C. Jordan, Animal Science Dept., Colorado State University, Fort Collins 80521.
Conn---- R. H. Benson, Animal Industries Dept., University of Connecticut, Storrs 06268.
Del----- W. R. Hesseltine, Animal & Poultry Science Dept., University of Delaware, Newark 19711.
Fla----- C. W. Reaves, Extension Dairy Section, University of Florida, Gainesville 32603.
Ga----- J. N. Maddux, Animal Industry Division, University of Georgia, Athens 30601.
Hawaii--- H. R. Donoho, Animal Science Dept., University of Hawaii, Honolulu 96822.
Idaho--- G. W. Cleveland, Dairy Science Dept., University of Idaho, Boise 83701.
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